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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YOON, TAE H

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 05/27/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055.685

Applicant(s)

Robert et al

Examiner

T. Yoon

Group Art Unit

1714

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-13 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-13 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

- ☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited molecular weight is indefinite in not specifying a particular average molecular weight such as a number average molecular weight or weight average molecular weight.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Moczygamba et al (US 4,158,654).

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Moczygemba et al teach the instant rubber composition in Recipe I and Table I on cols. 7-8 wherein COOH terminated styrene-butadiene rubber and glass fibers are seen.

Thus, the instant invention lacks novelty.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moczygemba et al (US 4,158,654) in view of Sandstrom (US 5,489,627) or Yatsuyanagi et al (US 5,962,575).

The instant invention further recites reinforcing silica, carbon black having surface-modification by silica and a bonding agent over Moczygemba et al. However, the use of such reinforcing silica, carbon black having surface-modification by silica and a bonding agent in rubber compositions in order to improve physical properties and enhance compatibility of a rubber and filler is well known in the art as taught by Sandstrom (silane coupling agent in lines 28-64, col. 5) and Yatsuyanagi et al (silica modified carbon black in lines 9-18, col. 3).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the art well known reinforcing silica, carbon black having surface-modification by silica and a bonding agent (silane coupling agent) of Sandstrom or Yatsuyanagi et al in Moczygemba et al since Moczygemba et al teach employing fillers such as silica and reinforcing agents (col. 5, lines 25-54) and carbon black (col. 6, line 11) and since the use of said additive in rubber compositions in order to improve physical properties and enhance compatibility of a rubber and filler is well known in the art.

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Claims 1-4, 10 and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ura-neck et al (US 3,135,716).

Ura-neck et al teach the carbon black reinforced rubber containing an antioxidant (Flexamine) at col. 10. The COOH terminated rubber having molecular weight of 150,000 is seen in table III, example 20, and its application in molded articles such as tires is taught at col. 9, lines 11-15. Various rubbers such as polybutadiene and copolymers with styrene is taught at col. 2, lines 8-22.

Thus, the instant invention lacks novelty.

Claims 1-8 and 10-13 are rejected under 35 U.S.C. 103(a) as obvious over Ura-neck et al (US 3,135,716) in view of Sandstrom (US 5,489,627) or Yatsuyanagi et al (US 5,962,575).

The instant invention further recites reinforcing silica, carbon black having surface-modification by silica and a bonding agent over Ura-neck et al. However, the use of such reinforcing silica, carbon black having surface-modification by silica and a bonding agent in rubber compositions in order to improve physical properties and enhance compatibility of a rubber and filler is well known in the art as taught by Sandstrom (silane coupling agent in lines 28-64) and Yatsuyanagi et al (silica modified carbon black in lines 9-18, col. 3).

With respect to claims 11 and 13, an invention in a product-by-process claim is a product, not a process. See *In re Brown*, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and *In re Thorpe*, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985).

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It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the art well known reinforcing silica, carbon black having surface-modification by silica or a bonding agent (silane coupling agent) of Sandstrom or Yatsuyanagi et al in Ura-neck et al since Ura-neck et al teach employing conventional compounding agents such as reinforcing agents (col. 8, lines 67-68 and col. 9, lines 16-22) and carbon black (example) and since the use of said additive in rubber compositions in order to improve physical properties and enhance compatibility of a rubber and filler is well known in the art.

Claim 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

US Pat. 5,696,197 to Smith et al who teach the addition of an antioxidant, zinc oxide and curing agents together in carbon black containing rubber mixtures, but it does not teach or suggest the instant steps and a carboxylic acid terminated rubber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/May 26, 2003


TAE H. YOON
PRIMARY EXAMINER